

WIPI2 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP9559b**Specification**

WIPI2 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [Q9Y4P8](#)**WIPI2 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 26100**Other Names**

WD repeat domain phosphoinositide-interacting protein 2, WIPI-2, WIPI49-like protein 2, WIPI2

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

WIPI2 Antibody (C-term) Blocking Peptide - Protein Information**Name** WIPI2 ([HGNC:32225](#))**Function**

Component of the autophagy machinery that controls the major intracellular degradation process by which cytoplasmic materials are packaged into autophagosomes and delivered to lysosomes for degradation (PubMed: [20505359](http://www.uniprot.org/citations/20505359), PubMed: [28561066](http://www.uniprot.org/citations/28561066)). Involved in an early step of the formation of preautophagosomal structures (PubMed: [20505359](http://www.uniprot.org/citations/20505359), PubMed: [28561066](http://www.uniprot.org/citations/28561066)). Binds and is activated by phosphatidylinositol 3- phosphate (PtdIns3P) forming on membranes of the endoplasmic reticulum upon activation of the upstream ULK1 and PI3 kinases (PubMed: [28561066](http://www.uniprot.org/citations/28561066)). Mediates ER-isolation membranes contacts by interacting with the ULK1:RB1CC1 complex and PtdIns3P (PubMed: [28890335](http://www.uniprot.org/citations/28890335)). Once activated, WIPI2 recruits at phagophore assembly sites the ATG12-ATG5-ATG16L1 complex that directly controls the elongation of the nascent autophagosomal membrane (PubMed: [20505359](http://www.uniprot.org/citations/20505359), PubMed: [28561066](http://www.uniprot.org/citations/28561066)).

Cellular Location

Preautophagosomal structure membrane; Peripheral membrane protein; Cytoplasmic side.
Note=Localizes to omegasomes membranes which are endoplasmic reticulum connected structures at the origin of preautophagosomal structures. Enriched at preautophagosomal structure membranes in response to PtdIns3P.

Tissue Location

Ubiquitously expressed (at protein level). Highly expressed in heart, skeletal muscle and pancreas.
Expression is down- regulated in pancreatic and in kidney tumors

WIPI2 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

WIPI2 Antibody (C-term) Blocking Peptide - Images**WIPI2 Antibody (C-term) Blocking Peptide - Background**

WD40 repeat proteins are key components of many essential biologic functions. They regulate the assembly of multiprotein complexes by presenting a beta-propeller platform for simultaneous and reversible protein-protein interactions. Members of the WIPI subfamily of WD40 repeat proteins, such as WIPI2, have a 7-bladed propeller structure and contain a conserved motif for interaction with phospholipids (Proikas-Cezanne et al., 2004 [PubMed 15602573]).

WIPI2 Antibody (C-term) Blocking Peptide - References

Proikas-Cezanne, T., et al. Oncogene 23(58):9314-9325(2004)Simpson, J.C., et al. EMBO Rep. 1(3):287-292(2000)